



## Filing Receipt

**Received - 2021-07-30 02:47:55 PM**  
**Control Number - 51840**  
**ItemNumber - 53**

**PROJECT NO. 51840**

**RULEMAKING TO ESTABLISH  
ELECTRIC WEATHERIZATION  
STANDARDS**

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**BEFORE THE  
PUBLIC UTILITY COMMISSION  
OF TEXAS**

**COMMENTS OF VISTRA CORP. ON COMMISSION  
STAFF'S DISCUSSION DRAFT AND REQUEST FOR COMMENT**

**TO THE PUBLIC UTILITY COMMISSION OF TEXAS:**

Vistra Corp. (Vistra) on behalf of its subsidiary power generation companies files the following comments in response to the Public Utility Commission of Texas (Commission) Staff's July 19, 2021 Discussion Draft and Questions for Comment.<sup>1</sup> These comments are timely filed.<sup>2</sup>

**I. EXECUTIVE SUMMARY**

Vistra supports establishing meaningful weatherization standards for generators in accordance with the Legislature's directives in Senate Bill No. 3 (SB 3) and considering lessons learned from Winter Storm Uri. Vistra also appreciates the Legislature's desire for prompt action on this and other topics affecting the ERCOT market given the expedited timeline set out in SB 3 for a final order in this rulemaking (i.e., December 8, 2021<sup>3</sup>) and the other accelerated rulemakings coming out of the 87<sup>th</sup> legislative session.<sup>4</sup>

Vistra provides specific feedback on Commission Staff's Questions and Discussion Draft in Sections II & III. As requested by Commission Staff, here is a bulleted executive summary of changes that Vistra proposes:

- Historical weather data from the National Oceanic and Atmospheric Administration (NOAA) should be relied upon for developing weatherization standards. NOAA data

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<sup>1</sup> Discussion Draft and Questions for Comment (July 19, 2021).

<sup>2</sup> *Id.* (setting deadline for comments by 3 p.m. CT on July 30, 2021).

<sup>3</sup> 87<sup>th</sup> Tex. Leg., R.S., SB 3, § 39 (effective Jun. 8, 2021) ("Not later than six months after the effective date of this Act, the Public Utility Commission of Texas shall adopt rules necessary to implement: (1) Section 35.0021, Utilities Code, as added by this Act; and (2) Section 38.075, Utilities Code, as added by this Act.").

<sup>4</sup> E.g., 87<sup>th</sup> Tex. Leg., R.S., Senate Bill No. 2 (SB 2) (effective Jun. 8, 2021) (requiring implementation of requirements related to the ERCOT organization by September 1, 2021); 87<sup>th</sup> Tex. Leg., R.S., House Bill No. 16 (HB 16) (effective Sept. 1, 2021) (prohibiting wholesale indexed products and requiring certain additional contract expiration notices, which must apply to customer enrollments on or after the September 1, 2021 effective date).

can be found at <http://xmacis.rcc-acis.org> or <https://www.ncdc.noaa.gov/cdo-web/search>.

- Current market mechanisms do not take weather reliability standards into account; the Commission should take such standards into account as it evaluates market design changes. Vistra also supports using ancillary and reliability service qualifications as a mechanism for providing revenues for weatherization.
- Change “improve” to “support” in the definition of “weather preparation measures” to recognize that some measures may be baseline and not “improvements.”
- Define extreme weather scenarios as statewide events.
- Clarify that ERCOT’s filing of its weather study is an application for the Commission’s approval.
- Target weather preparation measures to critical components, and remove the requirement that such measures ensure output at a resource’s rated capability, because in reality that is an impossible standard, due to the fact that all machines are subject to physical breakdown or operational impairment regardless of the level of maintenance or preparation effort.
- Expand the allowance for ERCOT to require generators to meet the “enhanced weather reliability standard” as a prerequisite for any offering of ancillary or reliability service.
- Delete the “new resource” standard since it is not different from the “basic” standard that already applies as a minimum for all resources.
- Tie compliance timelines to the Commission’s approval of ERCOT’s application to approve its initial weather study.
- Prioritize compliance timelines based on reliability qualifications, with Black Start qualification coming first, enhanced weather reliability qualification next, and basic reliability last, and with at least one outage season between deadlines.
- Replace the compliance study requirement with a compliance study incentive.
- Provide ERCOT enhanced latitude regarding inspection prioritizations.
- Allow for tolling of the cure period for identified violations during appeal or resource mothball or suspension.
- Allow for an ERCOT, similarly situated entity, or qualified third party report or compliance study to constitute a 24-month absolute defense window.

## II. RESPONSE TO STAFF QUESTIONS

*QUESTION: What is the availability of statistically reliable weather information from, e.g., the American Society of Heating, Refrigeration and Air Conditioning Engineers; National Weather Service; or other sources for the ERCOT power region? Please share the source of that information.*

In addition to having its own meteorologist on staff, Vistra relies upon multiple sources of weather data and information for its own planning and forecasting needs, but recommends that the Commission and ERCOT to reference historical weather data from the National Oceanic and Atmospheric Administration (NOAA) in developing electric weatherization standards. Historical weather data should be based on reliable weather observations from well-established climate reporting stations that have observations dating back to at least 1950. NOAA data is available through the NOAA Regional Climate Centers available at <http://xmacis.rcc-acis.org>, or alternatively from The NOAA National Centers for Environmental Information, available at <https://www.ncdc.noaa.gov/cdo-web/search>.

*QUESTION: Do existing market-based mechanisms provide sufficient opportunity for cost recovery to meet the weather reliability standards proposed in the discussion draft? If not, what cost recovery mechanisms should be included in the proposed rule?*

No; the existing market revenues have been clearly insufficient to provide the robust weatherization required to ensure market-wide reliability during extreme weather events, as evidenced by performance of the ERCOT fleet during Winter Storm Uri. Vistra supports the Commission's efforts to evaluate and reform the market design to ensure that generation resources have the incentive and opportunity to receive revenues to compensate for reasonable costs and provide a return to invest in the weatherization, among other critical attributes given the significant level of intermittent resources in ERCOT – notably wind, needed to support the reliability customers expect. If properly designed, the market would provide the full remuneration needed for generators to invest in the capital projects and ongoing maintenance needed to prepare for extreme weather events like those experienced in Winter Storm Uri allowing for the maximum reasonable protection possible.

Current market mechanisms do not explicitly take into account any weather reliability standards, and can result in vastly different financial outcomes from year to year. That said, the existing market structure provides a strong incentive for generators to make their capacity available

during scarcity events, since any hedged output or capacity sold into the Day-Ahead Market (DAM) must be bought back at potentially peak scarcity prices should a unit succumb to weather-related (or other) issues. To that point, Vistra is making certain investments now to help protect against recurrence of unforeseen issues Vistra experienced during Winter Storm Uri, even before the Commission establishes weatherization requirements in this rule. Importantly, Vistra's fleet performed very well during the storm, being more impacted by fuel supply issues than weather-related generation facility problems.

The market incentivizes cost-effective mitigation of known risks. If the Commission wants to incentivize greater amounts of weatherization than what the market currently produces, however, then weatherization requirements should be taken into account as part of the Commission's market design reviews (e.g., as a qualification for offering certain services, as proposed in the discussion draft), though some of those specifics likely fall outside the more focused scope of this rulemaking.

### III. RULEMAKING COMMENTS

In this section, Vistra will provide proposed interlineated changes to the discussion draft provisions related to generation resources, followed by an explanation of the proposed changes.

#### **§25.55. Weather Emergency Preparedness.**

(a) [no change]

(b) **Definitions.** In this section, the following definitions apply unless the context indicates otherwise.

(1) – (3) [no change]

(4) **Weather preparation measures** – Measures that a generation entity or transmission service provider may take to ~~improve~~ support the function of a facility in extreme weather conditions, including weatherization, fuel security, staffing plans, operational readiness, and structural preparations.

In the definition of “weather preparation measures,” Vistra proposed to change “improve” to “support” in recognition that all generators have some weatherization of components as part of the original design standards. Supplemental weatherization may include things such as additional insulation, shielding from extreme weather elements, or added heating and cooling of critical components, but both the original design criteria and the supplemental weatherization should be considered “weather preparation measures.”

(c) **Weather study.** ERCOT, in consultation with the Office of the Texas State Climatologist, must prepare a weather study that includes statistical probabilities of a range of extreme weather scenarios for the ERCOT region. ~~weather zones that ERCOT may also establishes~~ extreme weather zones for this study to differentiate between geographic areas with one or more materially different extreme weather risk profile elements.

(1) Weather study criteria. The weather study must include statistical probabilities for a range of weather scenarios in the 95th, 98th, and 99.7th percentile probabilities ~~for the established weather zones~~. The weather study must address a comprehensive range of weather event scenarios that may impact transmission and generation performance in the ERCOT power region. These scenarios must include, at a minimum, parameters for high and low temperatures, wind, humidity, precipitation, and duration during statewide extreme weather events.

(2) Filing and approval. ERCOT must file with the commission an application for approval of the first weather study consistent with this subsection no later than January 1, 2022 and then file with the commission a new weather study every five years thereafter. ERCOT must review data relevant to the weather study at least annually. If changes to weather scenario probabilities occur that may materially affect the ability of generation entities and transmission service providers to meet the weather reliability standards in this section, ERCOT must promptly prepare and file an application with the commission before the otherwise applicable five-year deadline. A weather study must be approved by the commission with or without modifications for it to affect compliance with the requirements of this section. The commission will approve compliance deadlines as part of its approval of any ~~study~~ application filed after the initial weather study.

With respect to variance of weather conditions by region, preparation standards for extreme cold (and heat) should recognize that extreme temperatures are problematic primarily when they occur on a statewide rather than localized basis, as they did in Winter Storm Uri, and thus the applicable standards for such extreme events should be uniform throughout the state – or at a minimum, be reflective of the minimal variation during statewide extreme weather events. Creating standards that increase costs disproportionately in some weather zones and not others will result in disparate treatment and an unequal playing field for generators.

The other changes are intended to reflect Vistra's reading of the Discussion Draft's proposed process by which ERCOT would submit an updated study and proposed compliance deadlines to the Commission for approval, along with minor edits that Vistra believes reflect the intent of the Discussion Draft or provide internal consistency within the Discussion Draft.

(d) **Weather reliability standard for a resource.** A generation entity must comply with the following standards.

- (1) Basic weather reliability standard. A generation entity must maintain weather preparation measures for critical components that reasonably ensure that its resource can provide service ~~at the resource's applicable rated capability as defined by ERCOT~~ under the 95th percentile of each of the extreme weather scenarios specified in the weather study approved by the commission under subsection (c) of this section.
- (2) Enhanced weather reliability service standard. A generation entity may elect to maintain weather preparation measures for critical components that reasonably ensure its resource can provide service ~~at the resource's applicable rated capability as defined by ERCOT~~ under the 98th percentile of each of the extreme weather scenarios specified in the weather study approved by the commission under subsection (c) of this section. ~~A ERCOT may require a resource that to meets this standard may in order to~~ qualify to provide ~~an enhanced weather certain ancillary or~~ reliability services procured by ERCOT.
- (3) Black Start Service (BSS) weather reliability standard. For a resource that provides BSS, a generation entity must maintain weather preparation measures for critical components that reasonably ensure the resource can provide service ~~at the resource's applicable rated capability~~ under the 99.7th percentile of the extreme weather scenarios specified in the weather study approved by the commission under subsection (c) of this section.
- ~~(4) New resource. A generation entity must maintain weather preparation measures that reasonably ensure that its new resource can meet the basic weather reliability standard under paragraph (1) of this subsection before it commences commercial operations. The generation entity must submit to ERCOT a compliance study as described in paragraph (f)(1) of this section by a deadline specified by ERCOT.~~

Vistra proposes to delete the phrase “at the resource’s applicable rated capability as defined by ERCOT” in each of the subsections of paragraph (d). A unit may experience a derate from its defined maximum seasonal rating for any number of reasons unrelated to weather, and so this phrase could create compliance risk for resources outside of their control.

With respect to the “reliability services” incentive for the proposed enhanced weather reliability service standard, ERCOT should be given broader latitude to incentivize better weatherization by applying weather preparation measure requirements to a resource’s qualification to offer ancillary and reliability services generally. This change would let ERCOT leverage existing ancillary services to incentivize greater weatherization, which may be a useful tool particularly over the near-term as these new requirements are being first implemented. Vistra also proposes to delete the section related to new resources, because it appears the Discussion Draft contemplates applying the same basic standards to all resources.

Finally, Vistra proposes that subsection (d) specify that the weather preparation measure requirements are applicable to the “critical components” of a resource (i.e., equipment and



facilities that must function or else risk immediate total loss of generation output). This is an important distinction to target weatherization expenditures towards the equipment that is necessary for the resource's operation without adding unnecessary costs (e.g., non-essential water lines that can be addressed operationally through isolation and draining prior to or during a cold weather event that will not result in a unit trip should not be required to be weatherized to a particular standard).

**(e) Implementation of weather reliability standards for a generation entity.**

- (1) Implementation of basic weather reliability standard. A generation entity must meet the basic weather reliability standard under subsection (d) of this section ~~by the following deadlines: within 24 months of the commission's approval of ERCOT's application under subsection (c).~~
  - ~~(A) For each resource with more than 650 megawatts (MW) of nameplate capacity in operation on January 1, 2022, no later than November 30, 2022;~~
  - ~~(B) For each resource with at least 250 MW and no more than 650 MW of nameplate capacity in operation on January 1, 2022, no later than November 30, 2023; and~~
  - ~~(C) For each resource with less than 250 of nameplate capacity in operation on January 1, 2022, no later than November 30, 2024.~~
- (2) Implementation of enhanced weather reliability service standard. A generation entity electing to meet the enhanced weather reliability service standard under subsection (d) of this section must meet the standard before providing a service requiring the standard ~~and by a specific deadline specified by ERCOT within 18 months of the commission's approval of ERCOT's application.~~
- (3) Implementation of BSS weather reliability standard. A resource that is contracted to provide BSS in the ERCOT power region must comply with the applicable weather reliability standard under subsection (d) of this section ~~no later than November 30, 2023 within 12 months of the commission's approval of ERCOT's application.~~
- (4) [no change]

The new statute specifies twice (in Sections 35.0021(c)(2) and (g)) that generation asset owners are to have a "reasonable" time to achieve compliance, following an inspection by ERCOT for compliance with the Commission's rule. Section 39 of SB 3 also directs the Commission to establish its weather-emergency-preparation rule within six months after the bill took effect (i.e., on June 8, 2021, which makes the deadline for the rule adoption December 8, 2021). To account for those requirements, the first ERCOT compliance inspections will need to allow for a reasonable initial compliance timeframe after the Commission adopts the rule that establishes the weather preparation requirements and approves ERCOT's initial weather study, and generators are allowed



by the statute an additional reasonable time to address any deficiencies identified by ERCOT in that first inspection. Generators may need to do work during seasonal planned outages, which will need to be distributed over time to avoid inadvertently jeopardizing reliability during outage season.

Vistra therefore proposes that the Commission align reliability and financial incentives in its initial compliance timelines by tying them to the ancillary and reliability service qualifications in subsection (d), with 6 months between each effective date to allow for staggering and prioritization of outage work across the ERCOT fleet. That is, the BSS weather reliability standard would become effective first (tied to the Commission's approval of the underlying weather study), followed by the enhanced weather reliability standard, and finally the basic weather reliability standard.

**(f) Compliance with weather reliability standards for a generation entity.**

- (1) Compliance study. Each generation entity ~~must~~ may submit to ERCOT a study that confirms compliance with the applicable weather reliability standard in subsection (d) for each resource in its control. The study must be conducted by a qualified professional engineer who is not an employee of the generation entity or affiliate. Such a study may be asserted as an absolute defense in instances in which a generation entity is alleged to have violated subsection (d).

~~(A) The study must contain the information that ERCOT determines by rule should be required and be submitted to ERCOT no later than the applicable implementation deadline in subsection (e) of this section.~~

~~(B) A generation entity must submit a new analysis no later than 60 days after any significant change affecting the ability of a resource to meet the applicable weather reliability standard in subsection (d) of this section.~~

- (2) [no change]

The new statute in Section 35.0021(d)(1) specifically contemplates a requirement that a generation entity contract with a third party for an assessment such as the Discussion Draft describes in paragraph (f)(1). However, that requirement is also specifically conditioned upon experiencing repeated or major weather-related forced interruptions with one of the generation entity's resources. Therefore, requiring generation entities to bear the cost of such a study prior to experiencing one of those conditions is inappropriate. However, there is value in providing an incentive for resource entities to take that step by reducing compliance risk. Doing so would help to further align ERCOT's and generation entities' private interests in support of the broader public

interest. In making such change to paragraph (f)(1), the provisions in subparts (A) and (B) become unnecessary.

**(g) Inspections for a Generation Entity.**

- (1) ERCOT inspections. ERCOT must implement an inspection program that reasonably determines whether the resources in the ERCOT power region are in compliance with subsection (d) of this section. ~~ERCOT must implement an inspection schedule that ensures that each resource is inspected at least once every three years for compliance with subsection (d) of this section.~~ ERCOT may conduct inspections more frequently than every three years and must prioritize generation resources in its inspection schedule ~~any generation resource it determines is critical for electric grid reliability based on risk level.~~ ERCOT may also prioritize inspections of other resources, including a generation resource that has experienced a weather-related forced outage, forced derate, or failure to start during extreme weather conditions, or that has exhibited other vulnerabilities to weather conditions ~~or deficiencies in weather emergency preparedness.~~ ERCOT has the discretion to determine the extent and content of particular inspections.
- (2) ERCOT inspection report. ERCOT must provide a report on its inspection of a resource to the generation entity. The inspection report must address whether the resource was in compliance with subsection (d) of this section and, if it was not, provide the generation entity a reasonable period to appeal the determination or to cure the identified deficiencies. The cure period ~~determined by ERCOT must consider what weather preparation measures the generation entity may be reasonably expected to have taken before ERCOT's inspection, the reliability risk of the resource's noncompliance, and the complexity of the weather preparation measures needed to cure the deficiency~~ will be tolled during the period in which the generation entity is appealing ERCOT's determination or is following the process described in Section 25.502(e) to mothball or retire the resource.

The first two sentences of paragraph (g)(1) appear nearly identical, and could be condensed without loss of meaning. Section 35.0021(c-1) as revised provides broader latitude to ERCOT in prioritizing inspections “based on risk level” than the Discussion Draft, which would limit prioritization to a determination that the resource is critical to reliability – a very high bar for an individual resource to meet. The rule should track the statutory language, which would not prohibit ERCOT from applying the Discussion Draft’s standard but also not constrain ERCOT’s prioritization. That broader statutory authority may also obviate the need for the next sentence regarding inspection priorities, but if the Commission wishes to retain that language to convey its expectations, two other changes are worth considering: (1) prioritize facilities that experienced “weather-related” issues; and (2) delete the phrase “deficiencies in weather emergency preparedness,” because the preceding phrase “other vulnerabilities to weather conditions” already suggests a deficiency exists.

In paragraph (g)(2), generation entities should have an avenue to appeal ERCOT's determination to the Commission if there is a disagreement regarding the report's conclusions. This is necessary to allow generation entities to defend themselves against alleged violations, which could carry significant penalties, if there is a material disagreement over the threshold fact of whether a violation has occurred. If a violation is agreed to or established, however, it is unclear how the proposed "measures the generation entity may be reasonably expected to have taken before ERCOT's inspection" and "the reliability risk of the resource's noncompliance" criteria would factor into the time needed to cure the deficiency. For the former, a violation indicates that such reasonable measures were not taken; for the latter, reliability risk unfortunately cannot alter the project timeline that may be necessary to remedy the violation. Thus, those specifics should be removed from the rule. The cure period in the rule should also be aligned with the appeal process and with the Commission's rule regarding suspension of operations, since in one case the need for the remedy is contested and in the other the cure is rendered moot by a resource's decision to mothball or retire.

**(h) Violations of weather reliability standards by a generation entity.**

(1) [no change]

(2) Limitations on provision of ~~BSS or any enhanced weather~~ ancillary or reliability services under new standards. A generation entity ~~must~~ may not use a resource to provide BSS or an ~~enhanced weather ancillary or~~ reliability service ~~implemented~~ qualified under subsection (d) of this section, if the resource has been found by ERCOT to have violated compliance with subsection (d) of this section, until ERCOT or the commission has determined that the violation has been cured. However, ERCOT ~~may~~ shall allow the continued use of the resource for the service ~~if it determines that the resource is needed for reliability reasons and must direct the generation entity to use best efforts to expeditiously cure the violation during the pendency of an appeal.~~

(3) Weather-related failures to provide service. For a resource that experiences repeated or major weather-related ~~forced interruptions of service, including~~ non-fuel-related forced outages, or derates, ~~or maintenance-related outages~~ that result in a failure to comply with subsection (d) of this section, the generation entity must contract with a qualified professional engineer who is not an employee of the generation entity or its affiliate to assess its weather preparation measures, plans, procedures, and operations and submit the assessment to the commission and ERCOT. ERCOT must ~~adopt rules that~~ specify in its Protocols the circumstances for which this requirement applies and specify the scope and contents of the assessment. ERCOT's Protocol must be consistent with this rule. A generation entity may be subject to additional inspections by ERCOT and referral to the commission for enforcement of any violation of the commission's rules and failure to cure the identified deficiencies within a reasonable period of time.



- (4) Defenses. An ERCOT inspection finding no violations, an inspection by another entity with authority over electric reliability, or a compliance study under paragraph (f)(1) is an absolute defense against allegations of violations for 24 months from the date of the inspection report.

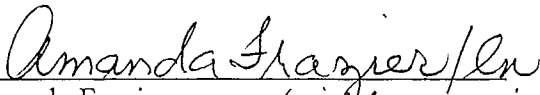
The proposed allowance in paragraph (h)(2) would provide a potential loophole through which some resources are permitted to provide ancillary or reliability services without meeting the same qualifications as other resources. To promote a level playing field, that language should be removed. Vistra also suggests other changes to paragraph (h)(2) consistent with other comments above regarding the right to appeal an alleged violation and the use of the broader ancillary and reliability service suite to encourage a greater degree of weatherization across the ERCOT fleet.

As demonstrated during Winter Storm Uri, actual operational performance can be dramatically (and devastatingly) affected by actions wholly outside a generator's control – such as the failure of fuel delivery infrastructure, frequency events, and mechanical issues unrelated to the weather. A rule that requires generators to control what they can control regarding weather preparedness is the logical approach that is also consistent with the Legislature's direction to the Commission in SB 3. Therefore, limiting the scope of paragraph (h)(3) to non-fuel weather-related failures is appropriate. Paragraph (h)(3) should also not include maintenance outages, as those are by definition intended to support a resource's performance by preventing a potentially more impactful outage in the future – which is distinct from weather issues driving an acute loss or reduction of generation.

In addition to ERCOT's compliance inspections required by SB 3, incentivizing voluntary third-party inspections could be appropriate as discussed above regarding paragraph (f)(1). An ERCOT inspection finding no issues should be treated as an absolute defense for compliance. Additionally, there may be other qualified third-party inspections (such as through NERC or the Texas Regional Entity, or through a contracted outside auditor) that the Commission should also accept as an absolute defense in between formal ERCOT inspections. Each should carry a reasonable period of deemed compliance, such as 24 months.

Dated July 30, 2021

Respectfully submitted,

  
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